

Contributors to this Issue

C. H. AMADON, B.S., Biltmore School of Forestry, 1908. Forester, Great Northern Paper Company, Maine, 1909-11; Forest Engineering, 1912-17; Western Electric Company, Inspection Department, 1918-24; Bell Telephone Laboratories, 1925-. Mr. Amadon has been engaged in development work in connection with timber engineering, timber utilization, and specification problems.

F. M. BRONSON, Walton (N. Y.) Telephone Company, 1898-1902. New England Telephone and Telegraph Company, Engineering Department, 1902-04; Traffic Department, 1904-10. American Telephone and Telegraph Company, Department of Operation and Engineering, 1910-. Mr. Bronson has been engaged chiefly in work relating to methods and arrangements for handling toll traffic. He is now a Bell System representative in Washington, D. C.

R. H. COLLEY, A.B., Dartmouth College, 1909; A.M., Harvard University, 1912; Ph.D., George Washington University, 1918; Austin Teaching Fellow in Botany, Harvard University, 1910-12; Instructor in Botany, Dartmouth College, 1909-10 and 1912-16; Pathologist, Division of Forest Pathology, Bureau of Plant Industry, U. S. Department of Agriculture, 1916-28. Bell Telephone Laboratories, 1928-. Dr. Colley has been engaged in specification studies for poles and pole preservation research.

W. H. DOHERTY, S.B. in Electrical Communication Engineering, Harvard University, 1927; S.M. in Engineering, 1928. American Telephone and Telegraph Company, Long Lines Department, 1928. Research associate, radio section, U. S. Bureau of Standards, 1928-29. Bell Telephone Laboratories, 1929-. Mr. Doherty has been concerned with the development of high-power radio transmitters.

L. P. FERRIS, B.A., University of Colorado, 1908; B.S. in Electrical Engineering, Massachusetts Institute of Technology, 1911. American Telephone and Telegraph Company, Engineering Department, 1911-19; Department of Development and Research, 1919-34, where he worked on inductive interference, crosstalk and measuring problems. Bell Telephone Laboratories, 1934-. As Inductive Coordination Engineer, Mr. Ferris has been concerned with questions as to the

effect of foreign voltages on telephone circuits, out of which arose the joint study of electric shock.

R. V. L. HARTLEY, A.B., Utah, 1909; B.A., Oxford, 1912; B.Sc., 1913; Instructor in Physics, Nevada, 1909-10. Engineering Department, Bell Telephone Laboratories, 1913-. Mr. Hartley has been associated with researches in the field of carrier current, telephone repeater, and telegraph systems.

L. W. HUSSEY, A.B., Dartmouth, 1923; M.A., Harvard, 1924; B.S. in E.E., Union College, 1930; Mathematics Department, Union College, 1924-29. Bell Telephone Laboratories, 1930-. Mr. Hussey has been engaged principally in work on the stability of regenerative systems and on modulation in non-linear resistances.

ROBERT N. MARSHALL, B.S. in Physics, Princeton University, 1930. Bell Telephone Laboratories, 1930-. Mr. Marshall has been engaged in acoustical studies pertaining to microphone design.

EDWARD C. MOLINA, Engineering Department of the American Telephone and Telegraph Company, 1901-19, as engineering assistant; transferred to the Circuits Design Department to work on machine switching systems, 1905; Department of Development and Research, 1919-34. Bell Telephone Laboratories, 1934-. As Switching Theory Engineer, Mr. Molina has made contributions to the theory of probability and its applications to telephone problems, such as the efficiency of various trunking arrangements and the significance of data derived from samples.

D. A. QUARLES, A.B., Yale University, 1916; U. S. Army, 1917-19. Engineering Department, Western Electric Company, 1919-25; Bell Telephone Laboratories, 1925-. Mr. Quarles was earlier engaged in transmission studies of circuits and networks. More recently he was in charge of inspection engineering on apparatus products. As Outside Plant Development Director, he is now engaged in development work on outside plant products.

FRANK F. ROMANOW, M.E., 1930, M.M.E., 1933, Polytechnic Institute of Brooklyn. Bell Telephone Laboratories, 1930-. Mr. Romanow has been engaged in the development of small condenser microphones and in research relating to acoustical instruments.

P. W. SPENCE, B.S., Columbia University, 1918; E.E., Columbia University, 1921. American Telephone and Telegraph Company, 1921-27; Bell Telephone Laboratories, 1927-. Since 1927, Mr. Spence has been largely occupied with studies on the effects of electric shock.

L. R. WRATHALL, B.S., University of Utah, 1927; Graduate School, 1927-28. Bell Telephone Laboratories, 1929-. Mr. Wrathall has been engaged in the study of non-linear reactances.